

# WDM Filter, 100 GHz Extrawide Passband, Low CD for 40 Gbps Applications

## DWS Series

**Key Features**

- Lowest chromatic dispersion
- Exceptional reliability and environmental stability
- Low insertion loss
- Flat and extrawide passband
- High demux channel isolation

**Applications**

- Metro networks
- Long-haul networks
- Denser channel plans
- 40 Gbps application

**Compliance**

- Telcordia GR-1221

JDSU ITU components are the result of years of telecommunication experience in interference filter technology. Individual components are available on ITU channel spacings of 200 and 100 GHz, as well as on bands of ITU channels.

JDSU ITU components are the evolution of industry-standard 100 GHz ITU components. Manufactured using laser welding technology, these devices exceed Telcordia GR-1221 requirements. They are designed for the lowest chromatic dispersion and demonstrate low insertion loss, temperature insensitivity, and reliable performance in any system application.

Used within mux/demux and add/drop applications, JDSU ITU components provide the utmost flexibility in single ITU channel management. They offer a simple solution to wavelength routing and are optimized to supply maximum bandwidth and isolation, yet maintain very low chromatic dispersion.

Established volume capability and proven experience in customizing fiber optic components and modules make JDSU the supplier of choice.

## Specifications

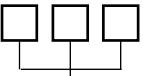
| Parameter                                     |         | DWS-1Fxxx3Lxx                                    | DWS-1Fxxx3Lxx-WB           |
|-----------------------------------------------|---------|--------------------------------------------------|----------------------------|
| Passband width                                | Minimum | ±14.1 GHz ( $\approx \pm 0.115$ nm)              | ±17.5 GHz ( $\pm 0.14$ nm) |
| Transmission passband ripple                  | Maximum | 0.3 dB                                           | 0.3 dB                     |
| Reflection passband ripple                    | Maximum | 0.2 dB                                           | 0.3 dB                     |
| Transmission insertion loss <sup>1</sup>      | Maximum | 1.1 dB                                           | 1.1 dB                     |
| Reflection insertion loss <sup>1</sup>        | Maximum | 0.45 dB                                          | 0.55 dB                    |
| Transmission isolation (adjacent channel)     | Minimum | 25 dB                                            | 23 dB                      |
| Transmission isolation (non-adjacent channel) | Minimum | 50 dB                                            | 50 dB                      |
| Reflection isolation                          | Minimum | 16 dB                                            | 15 dB                      |
| Transmission chromatic dispersion             | Maximum | ±17 ps/nm                                        | ±17 ps/nm                  |
| Reflection chromatic dispersion               | Maximum | ±17 ps/nm                                        | ±20 ps/nm                  |
| Optical return loss                           | Minimum | 45 dB                                            | 45 dB                      |
| Directivity                                   | Minimum | 50 dB                                            | 50 dB                      |
| Polarization dependent loss                   | Maximum | 0.1 dB                                           | 0.1 dB                     |
| Polarization mode dispersion                  | Maximum | 0.1 ps                                           | 0.16 ps                    |
| Optical power handling                        | Maximum | 1 W                                              |                            |
| Operating temperature range                   |         | -5 to 75°C                                       |                            |
| Storage temperature range                     |         | -40 to 85°C                                      |                            |
| Fiber type                                    |         | 9/125/250 $\mu$ m fiber, 9/125/900 $\mu$ m fiber |                            |
| Fiber length                                  |         | 1.5±0.1m                                         |                            |
| Package dimensions (Ø x L)                    |         |                                                  |                            |
| 9/125/250 $\mu$ m fiber                       |         | 5.5x35.4 mm (excluding strain reliefs)           |                            |
| 9/125/900 $\mu$ m fiber                       |         | 5.5x42.9 mm                                      |                            |

1. Excludes connector insertion loss

## Ordering Information

For more information on this or other products and their availability, please contact your local JDSU account manager or JDSU directly at 1-800-498-JDSU (5378) in North America and +800-5378-JDSU worldwide, or via e-mail at [customer.service@jdsu.com](mailto:customer.service@jdsu.com).

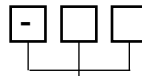
### Sample: DWS-1F3683L20-WB

**DWS-1F**  **3L**

**Channel Frequency**  
Provided by JDSU upon  
customer confirmation

| Code | Fiber Type                     |
|------|--------------------------------|
| 2    | 250 $\mu$ m fiber <sup>1</sup> |
| 9    | 900 $\mu$ m fiber              |

| Code | Connector Type <sup>2</sup> |
|------|-----------------------------|
| 0    | No connector                |
| 2    | FC/SPC                      |
| 3    | FC/APC                      |
| 4    | SC/SPC                      |
| 5    | SC/APC                      |
| 6    | LC/UPC                      |



| Code | Passband Width                      |
|------|-------------------------------------|
| None | ±14.1 GHz ( $\approx \pm 0.115$ nm) |
| WB   | ±17.5 GHz ( $\pm 0.14$ nm)          |

1. No connector available with this option.
2. Other connectors available upon request.